

Appln. No. 09/753,591
Amendment dated February 2, 2006
Reply to Office Action mailed October 18, 2005

Amendments to the Drawings

The attached sheet of drawings includes a new Figure 6. This sheet, which includes Fig. 6.

Attachment: New Sheet

Appln. No. 09/753,591
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REMARKS

Reconsideration is respectfully requested.

Claims 3, 4, and 8 through 31 remain in this application. Claims 1, 2 and 5 through 7 have been cancelled. No claims have been withdrawn. Claims 32 through 37 have been added.

The Examiner's rejections will be considered in the order of their occurrence in the Office Action.

Paragraphs 2 through 4 of the Office Action

The drawings have been objected to.

The previously submitted drawing amendment (the addition of a new Figure 6) has not been entered, and is withdrawn. Submitted with this Amendment is a new "new sheet" of drawings with a new Figure 6. It is submitted that the depiction in the proposed new Figure 6 is fully supported by the application as filed, particularly the portion of the disclosure contained in paragraphs [0014] and [0015] (as designated in the U.S. Patent Application Publication 2002/0121413 for this application).

An amendment of the "Brief Description of the Drawings" has been made in the specification to correspond to the amendment of the drawings. Further, a paragraph has been added to the "Detailed Description" portion of the application to support the reference numbers shown in added Figure 6. It is noted that the text added to the Detailed Description substantially corresponds to the text of paragraph [0014].

In light of the proposed drawing amendment, it is therefore submitted that the objection to the drawings as originally filed has been overcome, and withdrawal of the objection to the drawings is respectfully requested.

Appln. No. 09/753,591
Amendment dated February 2, 2006
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Paragraphs 5 through 7 of the Office Action

The substitute specification previously submitted has been objected to as introducing new matter (among other things) into the disclosure. The amendments to the specification were not entered.

The previously requested amendments to the specification are withdrawn.

Furthermore, with respect to paragraph 7 of the Office Action, claims 4 and 29 have been amended to remove mention of the "two air bag suspensions". It is submitted that the recitation of claim 6 is supported by the specification at paragraph [0014] and the text added by the amendment above.

Withdrawal of the objection is respectfully requested.

Paragraph 8 through 11 of the Office Action

Claims 4, 6, and 29 have been rejected under 35 U.S.C. §112 (first paragraph) as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to make and/or use the invention.

Claims 4, 7, and 17 through 30 have been rejected under 35 U.S.C. §112 (second paragraph) as being indefinite.

As noted above, claims 4 and 29 have been amended, and claim 6 is submitted to be supported by the specification.

Claims 4, 7, and 17 have been amended to overcome the indefiniteness rejections.

Withdrawal of the §112 (first paragraph) and §112 (second paragraph) rejections of claims 4, 6 and 29 is respectfully requested.

Appln. No. 09/753,591
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Paragraphs 12 through 16 of the Office Action

Claims 6 through 12 and 31 through 33 have been rejected under 35 U.S.C. §102(b) as being anticipated by Jurrens (hereinafter referred to as Jurrens '628).

Claims 3 through 5 and 17 through 30 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Jurrens '628 in view of Valdespino.

Claims 13 through 16 and 34 through 37 have been rejected under 35 U.S.C. Section 103(a) as being unpatentable over Jurrens '628.

Claim 1, particularly as amended, requires that "the air-bag is housed *within* a housing assembly and is *secured at one end to a piston* located within the housing assembly and *is secured at an other end to an upper plate or end cap* of the housing assembly". The positioning of the air bag within the housing assembly provides a number of advantages set forth in the disclosure of the present patent application, as well as protection of the air bag from potential damage from being exposed on the suspension of a vehicle.

Putting aside initially what the cited Jurrens '628 patent might or might not teach one of ordinary skill in the art, it is conceded in the rejections of the Office Action that (emphasis in original):

However, Jurrens et al do not disclose that the air bag is secured at one end to a piston located within the housing assembly.

It is then contended in the rejection that (emphasis added):

Valdespino is relied upon merely for his teachings of an air bag suspension system (see Figure 6) forming a shock absorber which includes at least one air bag 46, the air bag is housed within a housing assembly 41 and is secured at one end to a piston 50 located within the housing assembly and at an other end to an end cap 43 of the housing assembly.

Appln. No. 09/753,591
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However, it is submitted that the Valdespino patent does not disclose to one of ordinary skill in the art "the air-bag is housed within a housing assembly and is secured at one end to a piston located within the housing assembly and is secured at an other end to an upper plate or end cap of the housing assembly". In the rejection, the only reference to the Valdespino patent is to Figure 6 thereof, which appears to show a bladder 46 positioned between a disc 50 and a guide bushing 43. There is no explicit teaching or suggestion that the bladder is secured to either the disc or the guide bushing, particularly if one looks to the Valdespino patent at the portion that is directed to the showing Figure 6, at col. 4, lines 3 through 41:

Turning now to FIGS. 6 through 9, several embodiments of a shock absorber in accordance with the present invention are illustrated in which FIG. 6 has a shock absorber 40 having a casing 41 which is tubular in shape and with a shaft 42 passing through an opening and guide bushing 43. The casing has a shaft 44 connected to the opposite end from shaft 42 and has a connecting means 45 for connecting the shock absorber at one end to one portion of the vehicle. Shaft 42 extends into the casing 41 through an annular bladder 46 which has a thicker interior portion 47 than the exterior portion. Shaft 42 connects to a disc member 50 which in turn has a shaft 51 connecting it to a smaller disc 52 which is held against a second bladder 53, so that disc 50 engages the bladder 46 while disc 52 engages the bladder 53. The bladders are interconnected by a flexible hose 54 passing through disc 50 and disc 52 which allows the gas or liquid located in bladders 46 and 53 to pass between each other as the shaft 52 forces the discs 50 and 52 up and down within the casing 41. A valve member 55 may also be provided for adding or removing gas from the bladders 46 and 53 and a valve may be placed either in the opening 56 in disc 52 or opening 57 in disc 50 to vary the rate of flow between the two directions of flow between the bladders 53 and 46. It should, however, be clear that other means can be provided for varying the resistance to the movement of the shaft in either direction such as utilizing a stiffer rubber in a bladder 53 than in the bladder 46 so that when bladder 52 is forced downward the bladder 53 will curl inward providing a certain amount of resistance in one direction which may be different from the resistance to the movement of the shaft 42 in the opposite direction. It should also be clear that, in this embodiment as in the other embodiments, the casings can be teflon lined to prevent wear and abrasion on the bladders thereby providing longer life to the shock absorber.

Nothing here describes any securement of the bladder to the disc or the guide bushing. While the reasoning in the rejection may be based upon an interpretation that the hose 54 is "securing" the bladder 46 to the disk 50, there is nothing in the disclosure of Valdespino that confirms this relationship, and therefore it is submitted that any "securing" relationship

Appln. No. 09/753,591
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is based upon speculation of the relationship between these two elements, and not any actual concrete teaching of Valdespino..

Also, Figure 9, which is related to the embodiment of Figure 6, appears to show the bladder fully separated and spaced from the disc, which would suggest to one of ordinary skill in the art that the bladder is free floating in the space between the disc and the guide bushing. It is submitted that this depiction can only suggest to one of ordinary skill in the art that the bladder is unconnected to the disk.

It is further asserted in the rejection that (emphasis added):

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have constructed the air bag suspension system of Jurrens et al to include an air bag housed within a housing assembly that is secured at one end to a piston located within the housing assembly as taught by Valdespino as an alternate means of damping the motorcycle to simplify the overall air bag suspension design and to reduce the overall number of parts to the assembly. By constructing the air bag and shock absorber as one piece, a reduction in cost and simplicity of manufacture can be achieved.

However, this allegedly obvious basis for modifying the invention of the Jurrens '628 patent is not found in the Jurrens '628 patent, nor does such a suggestion appear in the Valdespino patent. More specifically, there is no indication in the Valdespino patent that its arrangement provides any simplification or cost savings benefits, and it is submitted that the annular or donut shape of the bladder that is employed in Valdespino is neither simpler or less costly than the structure in the Jurrens '628 patent. In any event, for the reasons set forth above, it is submitted that even if one were to take the position that Valdespino patent suggests changes in the structure of the device in the Jurrens '628 patent, the Valdespino patent would not lead one of ordinary skill in the art to the claimed invention because of the defects outlined above.

Further, claim 4 requires "at least one air-bag suspension system, the air-bag suspension system including a shock absorber which includes at least one air-bag constructed of an elastomeric material, the air-bag is

Appln. No. 09/753,591
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housed within a housing assembly and is secured at one end to a piston located within the housing assembly and at an other end to an end cap of the housing assembly *such that the piston, the end cap, and the air bag collectively define an air chamber within the housing for receiving and retaining air*" and, somewhat similarly, claim 17 requires "b. a housing assembly with an end cap, the housing assembly enclosing the air-bag, and the first end of the air-bag secured to a piston located within the housing assembly and the second end of the air-bag secured to the end cap *such that the piston, the end cap, and the air bag collectively define an air chamber within the housing*". It is submitted that these requirements are not taught or suggested by the Jurrens '628 patent or the Valdespino patent. In fact, it is submitted that the Jurrens' 628 and Valdespino patent would be more likely to lead one of ordinary skill in the art away from this claimed relationship, as each teaches, or appears to teach, a fully closed bladder positioned between opposing elements.

Still further, new claim 32 requires, among other things, "an air-bag positioned within the interior of the housing, the air bag being constructed of elastomeric material, the air-bag having a first end mounted on the housing in the interior of the housing and a second end mounted on the piston and a second end such that the piston, the housing, and the air bag collectively define an air chamber within the housing". This is submitted to be foreign to the disclosures of Jurrens '628 and Valdespino. New claim 33 requires "wherein the air bag includes a perimeter wall with a pair of opposite ends, a first one of the opposite ends of the perimeter wall being mounted on the housing and a second one of the opposite ends of the perimeter wall being mounted on the piston", and claim 34 requires "wherein each of the opposite ends of the perimeter wall includes a perimeter flange defining an opening, the perimeter flange at a first one of the opposite ends being secured to the housing and the perimeter flange at a second one of the opposite ends being secured to the piston" while claim 35

Appln. No. 09/753,591
Amendment dated February 2, 2006
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requires "wherein each of the opposite ends of the perimeter wall define an opening, a first one of the openings of the perimeter wall receiving a portion of an end cap of the housing and a second one of the openings of the perimeter wall receiving a portion of the piston". It is submitted that each of these requirements is not suggested by Jurrens '628 and Valdespino, and is more likely to be considered by one of ordinary skill in the art to be contrary to the disclosures of Jurrens '628 and Valdespino.

It is therefore submitted that the cited patents, and especially the allegedly obvious combination of Jurrens '628 and Valdespino set forth in the rejection of the Office Action, would not lead one skilled in the art to the applicant's invention as required by claims 3, 4, and 17. Further, the claims that depend from claims 3, 4, and 17 also include the requirements discussed above and therefore are also submitted to be in condition for allowance.


Withdrawal of the §102(b) and §103(a) rejections of claims 3, 4, and 8 through 31 is therefore respectfully requested.

CONCLUSION

In light of the foregoing amendments and remarks, early reconsideration and allowance of this application are most courteously solicited.

Respectfully submitted,

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